

Application Number: 10/604,639

Art Unit: 2636

IN THE DRAWINGS:

Two sheets of formal drawings (SHEET 2 and SHEET 3) are submitted herewith. Sheet 1-of-3 has not been modified and is therefore not resubmitted. Each sheet submitted is labeled "REPLACEMENT SHEET."

Sheet 2 has clearer labeling to show the conductor labeled as No. 4 in Sheet 1, Figure 1 as that same conductor, labeled as No. 4, in Figure 2. Sheet 2 has also added reference character "10" to replace previous latch plate reference character "9" so as to avoid the duplicated use of reference character "9" for both ribbon cable and latch plate.

Sheet 3, submitted herewith, includes reference sign "18," as described in the Specification.

It is respectfully requested that the formal drawings, including Sheet 2 and Sheet 3, be accepted and entered into this application.

Appendix: Two replacement drawing sheets of Figs. 2-3

Application Number: 10/604,639

Art Unit: 2636

REMARKS:

The official Office Action, together with the cited references have been studied and this application has been reviewed in light of the Examiner's remarks.

The allowance of drawing Sheet 1 is acknowledged, with appreciation. Drawing Sheet 2 and Sheet 3 stand objected to under 37 CFR 1.84(p)(4-5). In response thereto, Sheet 2 of the drawings has been amended to show the conductor labeled No. 4 in Figure 1 (of Sheet 1); and further, to show the latch plate as reference character "10." Sheet 3 has been amended to include reference sign "18," as referred to in paragraph 16, line 1 of the Specification. A set of formal drawings is presented with this Amendment for the Examiner's approval. No renumbering of figures is required and appropriate changes to the paragraph 13 of the Specification are included in this Amendment. No new matter has been added to the drawings or to this application by the presented formal drawings. It is respectfully requested that the two sheets of formal drawings, each sheet of which is labeled "REPLACEMENT SHEET," be accepted and entered into this application and that the Examiner withdraw the objection to the drawings.

The abstract of the disclosure, has been amended so as to not exceed 150 words in length as specified in MPEP § 608.01(b). It is respectfully requested that the Examiner withdraw the objection to the abstract of the disclosure.

The disclosure has been amended to correct the informalities of:

- Paragraph 5, line 4 by inserting the article "the" before "lock's."
- Paragraph 15, line 8 by inserting a space between the words "and" and "serves."
- Paragraph 15, line 9 by inserting a space between the words "to" and "increase."
- Paragraph 16, line 5, by inserting a space between the words "to" and "maintain."
- Paragraph 20, line 8, by replacing the terminal comma with a period.

It is respectfully requested that the Examiner withdraw the objection to the disclosure.

Application Number: 10/604,639

Art Unit: 2636

RE: ANTICIPATION REJECTIONS

For claim 1.

This claim stands rejected under 35 U.S.C. 102(b) as being anticipated by **Soloway** et al. (USPN 6,225,903) and as objected to for informalities.

It is respectfully submitted that the tampering detection taught by **Soloway** "sensor command unit (No. 30)" serves solely to detect tampering with the installed alarm system (reed switch) and is clearly incapable of sensing tampering with the locking mechanism itself. In contrast to **Soloway**, such sensing is an essential and integral function of the claimed "sensing circuitry" of instant application's Claim 1.

The magnets that **Soloway**'s "anti-tampering" guards against have no affect conventional locks – they serve instead to hold closed the reed switches that otherwise open upon retreat of permanent magnets affixed to protected doors or windows. All such reed-switch-based alarm systems have an obvious and well-known vulnerability to strong external magnets that may be utilized to maintain the reed switch in its closed (safe) position – even as the associated door or window, with attached magnet, is opened. The tampering detection device taught by **Soloway** is clearly one among several¹ well-known intended solely to preclude exactly such alarm system tampering. That **Soloway** teaches "anti-tampering" of the alarm system's reed switch (rather than the lock) is made quite clear in Col. 5, Ln.58; Col. 6, Ln.14; Col. 6, Ln.17; Col. 6, Ln.34 and Col. 6, Ln.39.

Nothing is taught by **Soloway** with respect to preclusion of typical lockset assaults, most conveniently characterized as requiring significantly more time than legitimate key insertion and rotation. Illustrative examples of such tampering, to the lockset itself -- clearly undetected by **Soloway**'s sensor command unit -- include: sequential trials of multiple keys, use of lock picks, drills run through the cylinder or just sawing through the lockset's bolt. In marked contrast to **Soloway**, the device of the instant application has structure and function expressly designed to detect – and alarm – upon each of these illustrative, and other, lockset manipulations or tamperings routinely used to achieve lockset compromise. One practical and clear consequence, illustrating this distinction from **Soloway**, is that the entire alarm-system art shown by **Soloway** is defeated, in its entirety, by picking or otherwise defeating the (deadbolt) lock, then withdrawing the lock's bolt and thereby turning off the entire alarm system as recited in Col. 8, Ln. 3-6.

¹ See Brill, USPN 4,945,340 and associated references.

Application Number: 10/604,639

Art Unit: 2636

To more clearly limit Claim 1, to distinguish its function and corresponding structure from that of the **Soloway** patent, clarifying limitation on "tampering" are amended to expressly specify " tampering directed at defeating said lockset's locking means." This is a significant² functional distinction with a correspondingly distinct structure that is believed to be patentably distinct from that of **Soloway's** sensor command unit (N. 30). This clarification adds no new matter and is entirely consonant with the original disclosure and best mode illustration as described paragraphs 16 and 17.

Accordingly, it is respectfully submitted that the tamper detection device and method of the current application serve a quite different purpose from that of the **Soloway** device's and that the device disclosed is structurally and functionally distinct from the "anti-tampering" structure taught by **Soloway**. It is believed that the amendments to Claim 1, as set forth above, overcome its rejection under 35 U.S.C. 102(b) and also overcome the objection to informalities. It is therefore respectfully requested that the Examiner withdraw objection to informalities, find this claim in allowable form, and allow this claim as amended.

² Approximately two-thirds of all residential and commercial burglaries involve forced entry.

Application Number: 10/604,639

Art Unit: 2636

For claim 2.

This claim stands rejected under 35 U.S.C. 102(b) as being anticipated by **Soloway** et al. (USPN 6,225,903) and as objected to for informalities.

It is respectfully submitted that the arming (Col. 7, Ln. 57-Col. 8, Ln 2) and disarming (Col. 8, Lns. 3-9) method taught by **Soloway** serve essentially to provide more convenient means for arming and disarming conventional multi-zone, residential security systems by replacing the keypad and control panel of prior art with the deadbolt sensor and LEDs of the cited sections (Col. 1, Lns. 50- 63; Col. 3, Lns. 10-16 and Col. 7, Lns. 3-6).

Claim 2, in contrast, discloses a method for arming and disarming a novel lockset tampering detection device of completely different structure and function from that of **Soloway**. Since **Soloway** does not teach the construction or use of the lockset tampering detection device of Claim 2 (or its equivalents) it is respectfully submitted that **Soloway** can not therefore anticipate the functional and structural limitations of arming and disarming such a lockset tampering detection device.

Neither **Soloway** nor the prior art he cites teach any method of detecting tampering with the lockset's locking means or any method of "arming, or disarming a lockset tampering detection device having, sensing circuitry, operatively coupled to said lockset, responsive to signals indicative of tampering directed at defeating said lockset." Instead, and in marked contrast, cited prior art assumes the integrity of the lockset without providing any means whatever for sensing well-known and commonly used methods to compromise locksets' mechanical integrity.

To further limit Claim 2 so as to clearly distinguish this claim's method, function and corresponding structure from that of the **Soloway** patent, it is amended with the clarifying limitation on "tampering" to expressly specify " tampering directed at defeating said lockset." This is a significant functional difference (as described above for Claim 1) that is accompanied by a correspondingly distinct structure, specifically designed to detect and signal tampering such as sequential trials of multiple keys, attempts to pick the lock, attempts to drill out the cylinder or even simple severing (sawing) off of the bolt. This clarification adds no new matter and is consonant with the original disclosure and best mode illustration as described paragraphs 16 and 17.

Accordingly, it is respectfully submitted that the tamper detection device and method of Claim 2 has patentably distinct operation and is structurally and functionally distinct from the bolt position sensor taught by **Soloway**. It is believed that the amendments to Claim 2, as set forth above, overcome its rejection under 35 U.S.C. 102(b) and also overcome the objection to its informalities. It is therefore respectfully requested that the Examiner withdraw objection to informalities, find this claim in allowable form, and allow this claim as amended.

Application Number: 10/604,639

Art Unit: 2636

For claim 3.

This claim stands rejected under 35 U.S.C. 102(b) as being anticipated by **Soloway et al.** (USPN 6,225,903).

It is respectfully submitted that the connection between the command unit (No. 30) and the bolt (No. 20) of **Soloway** serves solely to activate a reed switch and thereby signal the bolt's state (extended or retracted). In contrast, the function of locksets' bolt in Claim 3 is to convey signals, indicative of tampering, directed at defeating the mechanical locking function of the lockset, from the tampered upon portion of the lockset, through the lock's bolt and from there to sensing circuitry.

The "sensing circuitry" of Claim 3 has function and structure entirely distinct from the magnetic reed switch (No. 54) of the **Soloway** patent. The entire function of the **Soloway** patent's reed switch is, as described in Col. 3, Ln. 20 "wherein the deadbolt's position is accurately detected by means of a Reed switch, a microswitch, or other means." As **Soloway** makes clear, this reed switch (or equivalent) means is to detect whether the bolt is in its nominally extended or retracted position. Neither this switch alone nor its operation in conjunction with the "anti-tampering" switch teach any other function than to accurately ascertain whether the lockset's bolt is retracted or extended.

In contrast to **Soloway**, the sensing circuitry of the instant application's Claim 3 detects signals indicative of intruder's manipulations of the lockset, where such manipulations are directed at defeating the lockset's locking function. To more clearly limit this claim, and to better distinguish this claim's method, function and corresponding structure from that of the **Soloway** patent, the clarifying limitation on "tampering sensing circuitry" is amended to expressly specify "lockset tampering sensing circuitry." This clarification adds no new matter and is consonant with the original disclosure and best mode illustration as described paragraphs 16 and 17.

That such manipulations are detected through the lockset's bolt is of particular utility since it obviates the need for sensing circuitry and associated wiring on the moveable door. The use of the lockset's bolt to communicate signals indicative of lockset tampering (capacitance change, vibration, movement, etc.) is functionally distinct from simple bolt position detection. The structure employed for sensing such lockset manipulation by a would-be intruder is correspondingly distinct from that employed to sense only whether the bolt is or isn't extended and provides significant highly useful information that is clearly not determinable from bolt position alone.

Accordingly, it is respectfully submitted that Claim 3 describes an "operative connection" that is structurally and functionally distinct from the bolt position sensor taught by **Soloway**. It is believed that the amendments to Claim 3, as set forth above, overcome its rejection under 35 U.S.C. 102(b) and it is therefore respectfully requested that the Examiner find this claim in allowable form and allow this claim as amended.

Application Number: 10/604,639

Art Unit: 2636

For claim 4.

This claim stands rejected under 35 U.S.C. 102(b) as being anticipated by **Soloway** et al. (USPN 6,225,903) with Examiner's finding that "if unlocking of the bolt of **Soloway** is not achieved within predefined limits, the alarm signal is activated."

Despite careful rereading of **Soloway**, there does not appear any clear teaching of alarm signal activation upon "unlocking ... not achieved not achieved within predefined limits." It is respectfully submitted that the Examiner possibly overlooked the difference between delayed enabling or arming of an alarm system and the system's actual generation or signaling of an alarm. It is believed that since **Soloway** does not teach the construction or use of the lockset tampering detection device of Claim 1 (or its equivalents) that **Soloway**, therefore, does not anticipate the functional and structural limitations of claimed means for generating an alarm signal upon detection of tampering with said lockset, in its locked state, when such tampering is not culminated in timely fashion with successful unlocking.

The bolt position sensing taught by **Soloway** is incapable of detecting attempts to sequentially try multiple keys, to pick the lock, drill out the cylinder or otherwise tamper with the locking mechanism. Because such tampering is clearly not detected by **Soloway**, it follows that the **Soloway** device is also incapable of initiating a timing cycle upon the detection of such tampering or of generating an alarm signal when successful unlocking is not accomplished within a established amount of time after onset of such tampering.

In contrast to **Soloway's** bolt position sensor, the sensing circuitry of Claim 4 detects signals indicative of intruder's tampering with the lockset, where such manipulations are typically directed at defeating the lockset's locking function. To more clearly limit Claim 4, and to better distinguish this claim's method, function and corresponding structure from that of the **Soloway** device, an amending limitation on "predefined limits" is submitted to expressly specify "predefined time limits." This amendment adds no new matter and is consonant with the original disclosure and best mode illustration as described paragraphs 16 and 17.

Accordingly, it is respectfully submitted that the additional limitations on base Claim 1, together with amendment to Claim 4, describe sensed conditions, sensing means, sensor function and [timing] limits that are structurally and functionally distinct from any predefined limits on the operation of **Soloway's** bolt position sensor. It is therefore respectfully requested that the Examiner find this claim in allowable form and allow this claim as amended.

Application Number: 10/604,639

Art Unit: 2636

For claim 11.

This claim stands rejected under 35 U.S.C. 102(b) as being anticipated by **Soloway** et al. (USPN 6,225,903) in that "the detection device of **Soloway** is part of a multi-zone security system (Col. 7, Lns. 11-25) and uses several LED displays to indicate the status of the bolt, whether disarmed or armed. Further displays also indicate alarm status."

It is respectfully submitted that **Soloway's** bolt position sensor and LED display serve to essentially replace the keypad and display of conventional security systems (Col. 1, Lns. 50- 63; Col. 3, Lns. 10-16 and Col. 7, Lns. 3-6). The LED display and bolt of **Soloway** are, of themselves, incapable of being "disarmed," "armed," or "in alarm." In contrast, Claim 11 discloses a device that is fully capable of autonomously signaling an alarm state (upon detecting mechanical lockset tampering). It is believed that since **Soloway** does not teach the construction or use of the lockset tampering detection device of Claim 1 (or its equivalents) that **Soloway**, therefore, does not anticipate the functional and structural limitations of disclosed means for cooperative operation with a conventional security system so as to signal to that system the autonomous device's state of being disarmed, armed or in alarm.

Put another way, Claim 11's signaling is entirely analogous to signaling normally provided to multi-zone security systems by fire sensors, carbon monoxide sensors, motion detectors or reed switches except from a new and novel (lockset tampering) sensor able to signal the states described. Accordingly, it is respectfully submitted that the nature, purpose and use of the signal of Claim 11— together with its data content, format and direction – are significantly different from the LED signaling means taught by **Soloway** and is therefore not anticipated by **Soloway**. To better limit Claim 11 and to more clearly distinguish this claim's method, function and corresponding structure from that of **Soloway's** bolt sensor and LED display, the amendment to Claim 11 submitted herein specifies that described signals are sent to a conventional multi-zone security system with "said signal serving to communicate . . ."

Accordingly, it is respectfully submitted that the amendment herein to base Claim 1, together with this amendment to Claim 11, describe signaling of states not anticipated by **Soloway** with data content, format and direction significantly different from the LED and bolt signaling means taught by **Soloway**. It is therefore respectfully requested that the Examiner find this claim in allowable form and allow this claim as amended.

Application Number: 10/604,639

Art Unit: 2636

RE: OBVIOUSNESS REJECTIONS

For claim 6.

This claim stands rejected under 35 U.S.C. 103(a) as being obvious from **Soloway et al.** (USPN 6,225,903) in light of **Soloway's** use of cabling (No. 32) to connect panel (No. 70) and sensor command unit (No. 30).

It is respectfully submitted that the disclosed device of Claim 6 has no equivalents to either panel (No. 70) or sensor command unit (No. 30) and therefore makes no use of conventional cabling to connect the one to the other -- or use of the simplification to such cabling in ribbon form. Accordingly, it is believed that there is no teaching or other motivation by **Soloway** that would (absent hindsight) direct the disclosed "operative connection" (between [lockset] tampering circuitry and said lockset) of Claim 6 with the disclosed ribbon cable (Fig. 2, No. 9).

The motivation, for use of the ribbon cable assembly of Claim 6, is not attainment of **Soloway's** wiring (No. 32) in a smaller space but is instead the achievement of quite different objectives. These include significantly simplified installation of a (stand-alone) embodiment of the claimed device, without need of tools to modify either existing lockset, strike plate or doorframe (as required by **Soloway**). Also in contrast to **Soloway**, Claim 6 describes the *entire* system wiring required to achieve a *fully* autonomous embodiment of a lockset tamper detection device. The significance and non-obvious physical arrangement of the elements comprising the disclosed ribbon cable assembly is further detailed as follows.

Contacts, integral to the ribbon cable assembly shown in Figure 2 as reference characters "11" and "12," are designed to be manually positioned and retained within existing bolt recess and, therein, to provide reliable "wiping action" contact with the existing bare metal bolt as the bolt is extended into the bolt recess. The ribbon cable is easily, conventionally and aesthetically secured to the doorframe and, as is shown in Figure 4, the insulation of the ribbon cable, as shown, serves to prevent the "shorting" of these conductors by the normally conductive strike plate. The vertical arrangement of the pre-formed and unterminated conductor shown with reference character "4" is specifically designed to be retained along the jamb, as shown in Figure 2, to provide the second "plate" of the capacitor created when a would-be intruder, standing outside the door, parallel with this conductor, touches the lockset that is monitored through the lockset's bolt. This clarification of Claim 6 adds no new matter and is consonant with the original disclosure, Figure 2 and the best mode illustration as described paragraphs 16 and 17. The ease and convenience with which the disclosed ribbon cable assembly can be installed, and its full sufficiency, is in marked contrast to the multiple connections and hard-wired reed switches and/or magnets, necessarily embedded within the interior of the doorjamb as taught by **Soloway**.

Application Number: 10/604,639

Art Unit: 2636

Accordingly, it is respectfully submitted that dependent Claim 6 describes ribbon cable construction, connection, use and operation that is unobvious from **Soloway** alone or in combination with other cited prior art: in short, that the ribbon cable disclosed has significant functional and structural differences from the group of wires (No. 32) taught by **Soloway**. It is therefore respectfully requested that the Examiner find amended Claim 6 in allowable form and allow this claim as additionally limited through amendments, submitted herewith, to base Claim 1 and intervening Claim 3.

For claim 8.

This claim stands rejected under 35 U.S.C. 103(a) as being obvious in light of **Soloway** et al. (USPN 6,225,903) in that **Soloway** teaches: 1) use of a time delay (Col. 7, Lns. 32-36) to inhibit arming of the area (interior) alarm when area sensors detect people still remaining in the interior area during a short "test" interval after deadbolt engagement and 2) use of three beeps to indicate successful arming of perimeter alarms. The claim also stands objected to for informalities.

It is respectfully submitted that the "time delay," "just locked" bit and "chirp" of Claim 8 are each necessitated by specific and claimed functionality of the disclosed device that is without teaching or motivation in **Soloway**. Instead, it is the disclosed device's ability to detect mechanical lockset tampering, not found in **Soloway** and as limited in amended base Claim 2, that provides motivation for all three.

The disclosed time delay is required to distinguish legitimate locking from mechanical tampering, directed at defeating the lockset's locking function. Absent such delay, withdrawal of the key (after bolt extension) would be generally indistinguishable from tampering as disclosed in base Claim 2.

The disclosed "chirp" of Claim 8 is likewise necessitated by the ability of the disclosed device (and not of **Soloway**'s) to detect and alarm upon mechanical tampering with the lockset. This capability results in the requirement to signal the operator that any contact with the lock set after that chirp – when that contact is not promptly followed by legitimate unlocking – will result, after a short time delay, in an alarm signal.

The disclosed "just locked" bit, in contrast to any apparent equivalents within **Soloway**, enables the compact, economical and low power use of the same timer components, in the "stand alone" implementation of the device, to both delay arming upon bolt engagement (Claim 8) and to delay alarming upon detecting the lock tampering/manipulation associated with normal unlocking (Claim 9).

Because the **Soloway** device is completely insensitive to tampering with the lockset (as disclosed in base Claim 2) neither the requirements for, nor the implementation of, the time delay, just locked bit and chirp of Claim 8 can be said to find clear motivation within **Soloway** wherein all three are used solely to enable alarm system operators to avoid arming an area alarm if motion sensors in the area sense the area to be occupied, during the time delay issue.

Accordingly, it is respectfully submitted that method of Claim 8 discloses motivation, operation and use of: time delay, chirp and just-locked bit that are, collectively and individually, neither taught nor motivated by **Soloway** and are structurally and

Application Number: 10/604,639

Art Unit: 2636

functionally distinct from the conditional arming of an area alarm as taught by **Soloway**. It is therefore respectfully requested that the Examiner find the claim in allowable form and allow this claim as corrected to overcome objection to informalities and as additionally limited through amendments submitted herewith to base Claim 2.

Application Number: 10/604,639

Art Unit: 2636

RE: OBJECTED TO CLAIMS

Introduction

The Office's indication of allowable subject matter in objected to claims 5, 7, 9, 10 and 12-18, if rewritten in independent form, including all of the limitations of the base and any intervening claims is acknowledged, with appreciation.

It is respectfully submitted of the objected to claims that the amendments submitted herein to their rejected base claims 1-2 and their rejected intervening claims 3 and 11 add no new matter and, if accepted, serve to necessarily limit the objected to claims so that they no longer read upon a simple tampering alarm with bolt detector. Further, insofar as all original limitations of base and intervening claims are retained, together with the original limitations of the objected to claims, it is believed that these objected to claims are, as amended, in allowable form.

These amendments, together with corresponding remarks of this response, limit the disclosed device as one that overcomes clear, specific and serious deficiencies in cited prior art (**Soloway**) that include:

- Inability to function as both an entirely autonomous (single door) security alarm or, in the alternative, in conjunction with a conventional multi-zone residential security system.
- Susceptibility to complete alarm system defeat through conventional mechanical lockset compromise such as successful lock picking, cylinder drilling, sequential trials of multiple keys, or equivalent mechanical lockset defeat means, means followed by bolt retraction and disarming of the entire alarm system as described in **Soloway** Col. 8, Lns. 3-6.
- Required structural changes, beyond the capability of the majority of residence owners, to existing locksets and/or doorframes for installation of the **Soloway** device.

The disclosed invention overcomes all of these deficiencies with a device that 1. installs easily – without tools, 2. detects and alarms upon common lockset tamperings and disarms upon normal unlocking, 3. provides fully functional local alarm capability (with local alarm sounder LS1) and 4. can be used as a remote "sensor" that is conveniently integrated with a conventional residential security system.

For claim 5.

This claim stands objected to as generally described in the introduction above and specifically as dependent upon: base Claim 1, both rejected for anticipation by

Application Number: 10/604,639

Art Unit: 2636

Soloway and objected to for informalities; and intervening Claim 3, rejected for anticipation by **Soloway**.

It is respectfully submitted that the amendments submitted herein serve to sufficiently limit claims 1 and 3 to overcome their §102 rejections and also to correct the objectionable informalities of Claim 1.

Accordingly, it is respectfully requested that the Examiner find corrected Claim 5 is now in allowable form and allow this claim as corrected and as additionally limited through amendments to base and intervening claims.

For claim 7.

This claim stands objected to as generally described in the introduction above and specifically as dependent upon: base Claim 1, both rejected for anticipation by **Soloway** and objected to for informalities; intervening Claim 3, rejected for anticipation by **Soloway**; and intervening Claim 5, objected to as described under heading "For claim 5," immediately above.

It is respectfully submitted that the amendment submitted herein serve: to sufficiently limit claims 1 and 3 to overcome their §102 rejections; to thereby overcome the objection to Claim 5 (as described immediately above); and also to correct objected to informalities of Claim 1.

Accordingly, it is respectfully requested that the Examiner find corrected Claim 7 is now in allowable form and allow this claim as corrected and as additionally limited through amendments made to base and intervening claims.

For claim 9.

This claim stands objected to as generally described in the introduction above and specifically for its objected to informalities and for its dependence upon base Claim 2, both rejected for anticipation by **Soloway** and objected to for its informalities.

It is respectfully submitted that the amendments submitted herein serve to sufficiently limit Claim 2 to overcome its §102 rejection; to correct Claim 2's informalities and to correct noted informalities of Claim 9.

Accordingly, it is respectfully requested that the Examiner find corrected Claim 9 is now in allowable form and allow this claim as corrected and as further limited through amendment to its base Claim 2.

For claim 10.

This claim stands objected to as generally described in the introduction above and specifically: for its objected to informalities; for its dependence upon base Claim 2,

Application Number: 10/604,639

Art Unit: 2636

both rejected for anticipation by **Soloway** and objected to for informalities; and for its dependence on intervening Claim 9 objected to as described under heading "For claim 9" immediately above.

It is respectfully submitted that amendments submitted herein serve to: sufficiently limit Claim 2 to overcome its §102 rejection; to correct Claim 2's informalities; to sufficiently limit Claim 9 as described immediately above; and to corrected the objected to informalities of claim 10.

Accordingly, it is respectfully requested that the Examiner find Claim 10 is now in allowable form and allow the claim, as corrected and as additionally limited through amendment to base Claim 2 and, thereby, to intervening Claim 9.

For claim 12.

This claim stands objected to as generally described in the introduction above and specifically: for its objected to informalities; for its dependence upon intervening Claim 11, rejected for anticipation by **Soloway**; and for its dependence upon rejected base Claim 1, rejected for anticipation by **Soloway** and objected to for informalities.

It is respectfully submitted that amendments submitted herein serve: to sufficiently limit claims 1 and 11 to overcome their §102 rejections; and to correct Claim 1's informalities.

Accordingly, it is respectfully requested that the Examiner find corrected claim twelve is now in allowable form and allow this claim as narrowed through amendment to intervening Claim 11 and base Claim 1.

For claims 13-17.

Each of these claims stands objected to as generally described in the introduction above and specifically as dependent upon: base Claim 1, rejected for anticipation by **Soloway** and objected to for informalities; intervening Claim 11, rejected for anticipation by **Soloway**; and intervening Claim 12, objected to as described under "For claim 12" immediately above.

It is respectfully submitted that the informalities of claims 13-17, intervening Claim 11 and base claim 1 are corrected through the amendments herein. Further, that the §102 rejections of claims 1 and 11 are overcome through amendments herein that also serve to further limit the scope of dependent claims 13-17 so as to overcome the Examiner's objection of dependent claims too broad to merit patentability.

Accordingly, it is respectfully requested that the Examiner find amended claims 13-17 are now in allowable form and allow these claims as narrowed through amendments to intervening claim 11 and to base Claim 1.

Application Number: 10/604,639
Art Unit: 2636

For claim 18.

This claim stands objected to as generally described in the introduction above and specifically: for its objected to informalities; for its dependence upon objected to intervening Claims 17 and 12 as described under correspondingly captioned headings above; for its dependence upon intervening Claim 11, rejected for anticipation by **Soloway**; and for its dependence upon rejected base Claim 1, rejected for anticipation by **Soloway** and objected to for informalities.

It is respectfully submitted that amendments submitted herein serve to sufficiently limit base Claim 1 and intervening Claim 11 to overcome their §102 rejections and thereby sufficiently narrow the scope of dependent claims 12 and 17 to overcome Examiner's objection to excessive broadness. Further, that corrections to base Claims 1 and intervening claims 12 and 17 serve to correct objected to informalities.

Accordingly, it is respectfully requested that the Examiner find corrected Claim 18 is now in allowable form and allow this claim as further limited through amendment to intervening Claim 11 and base Claim 1.

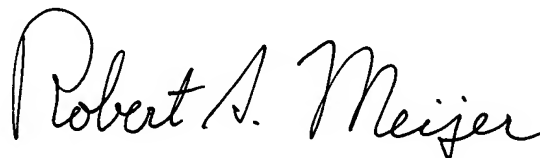
In closing

Please enter and accept this document as a response to the Official Office Action with mail date of May 16, 2005. This paper has been posted in the United States Postal Service, with proper postage and address, within three months of the mail date of May 16, 2005.

No new matter is introduced to the included two replacement sheets of corrected drawings nor to this application. No new claims are added and no additional fee is required.

It is respectfully requested that the Examiner withdraw the objections to the drawings, specification and claims and allow further limited claims as amended and find this application in allowable condition and allow this application.

Respectfully Submitted,

A handwritten signature in black ink that reads "Robert S. Meijer". The signature is written in a cursive, flowing style with a large initial 'R'.

Robert S. Meijer
Applicant/Inventor